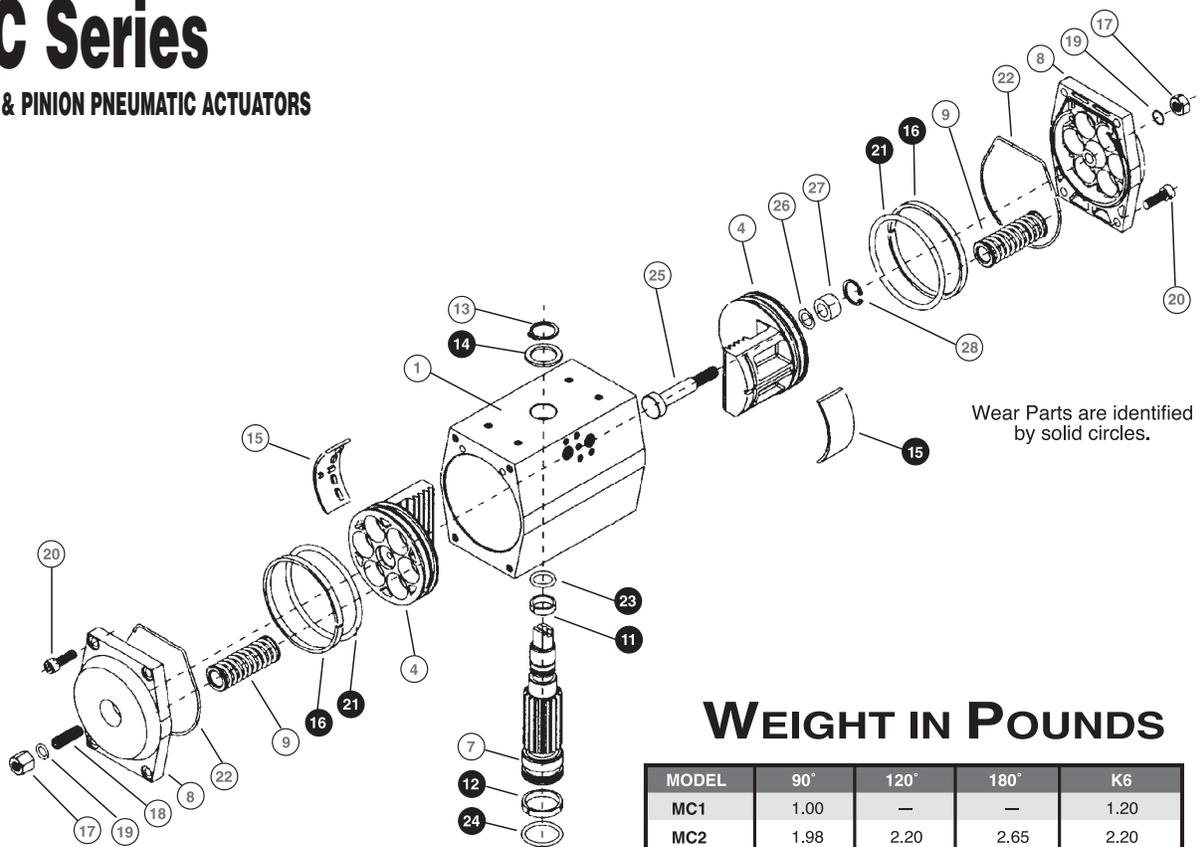


MC Series

RACK & PINION PNEUMATIC ACTUATORS



M-SERIES MATERIALS

| POS. | QTY. | DESCRIPTION | MATERIAL |
|------|--------|-----------------------|--|
| 1 | 1 | BODY | ANODIZED ALUMINUM POLYESTER EPOXY COATING |
| 4 | 2 | PISTON** | DIE CAST ALUMINUM |
| 7 | 1 | PINION | E.N.P. ASTM B656 STEEL |
| 8 | 2 | END CAP** | EPOXY COATED ALUMINUM |
| 9 | MAX 12 | SPRING CARTRIDGE | EPOXY COATED STEEL DELNIN / BRASS |
| 11 | 1 | UPPER PINION BEARING | DELNIN 500 |
| 12 | 1 | LOWER PINION BEARING | DELNIN 500 |
| 13 | 1 | CIRCLIP | E.N.P. ASTM B656 STEEL |
| 14 | 1 | PINION WASHER | DELNIN 500 |
| 15 | 2 | PISTON SKATE | DELNIN 500 |
| 16 | 2 | PISTON GUIDE RING | DELNIN 500 |
| 17 | 2 | SEALING NUT | 304 Stainless Steel |
| 18 | 2 | TRAVEL STOP | 304 Stainless Steel |
| 19 | 2 | TRAVEL STOP O-RING | BUNA-N |
| 20 | 8 | END CAP SCREW | 304 Stainless Steel |
| 21 | 2 | PISTON O-RING | BUNA-N |
| 22 | 2 | END CAP O-RING | BUNA-N |
| 23 | 1 | UPPER PINION O-RING | BUNA-N |
| 24 | 1 | LOWER PINION O-RING | BUNA-N |
| 25 | 1 | DLS STOP BOLT | 304 STAINLESS STEEL |
| 26 | 1 | DLS STOP BOLT O-RING | VITON |
| 27 | 1 | DLS STOP BOLT BEARING | TEFLON |
| 28 | 1 | DLS STOP BOLT CIRCLIP | E.N.P. ASTM B656 STEEL |

** MC1 - MC2 utilize polyamide materials

WEIGHT IN POUNDS

| MODEL | 90° | 120° | 180° | K6 |
|-------|--------|--------|--------|--------|
| MC1 | 1.00 | — | — | 1.20 |
| MC2 | 1.98 | 2.20 | 2.65 | 2.20 |
| MC3 | 2.98 | 3.26 | 3.97 | 3.42 |
| MC5 | 4.30 | 4.74 | 5.95 | 5.07 |
| MC7 | 5.51 | 5.95 | 7.94 | 6.39 |
| MC10 | 7.39 | 8.16 | 11.25 | 8.38 |
| MC14 | 10.58 | 11.47 | 13.56 | 12.79 |
| MC22 | 14.99 | 16.90 | 20.68 | 17.86 |
| MC29 | 18.74 | 20.73 | 26.02 | 22.49 |
| MC47 | 31.00 | — | — | 39.80 |
| MC58 | 34.40 | 39.69 | 55.79 | 42.78 |
| MC90 | 61.50 | — | — | 83.10 |
| MC121 | 68.80 | 81.14 | 106.94 | 86.66 |
| MC236 | 132.32 | 146.63 | 173.60 | 180.81 |
| MC295 | 160.97 | 177.60 | — | 209.48 |
| MC372 | 205.00 | — | — | 267.00 |

AIR CONSUMPTION CUBIC INCHES PER CYCLE (Open/Close)

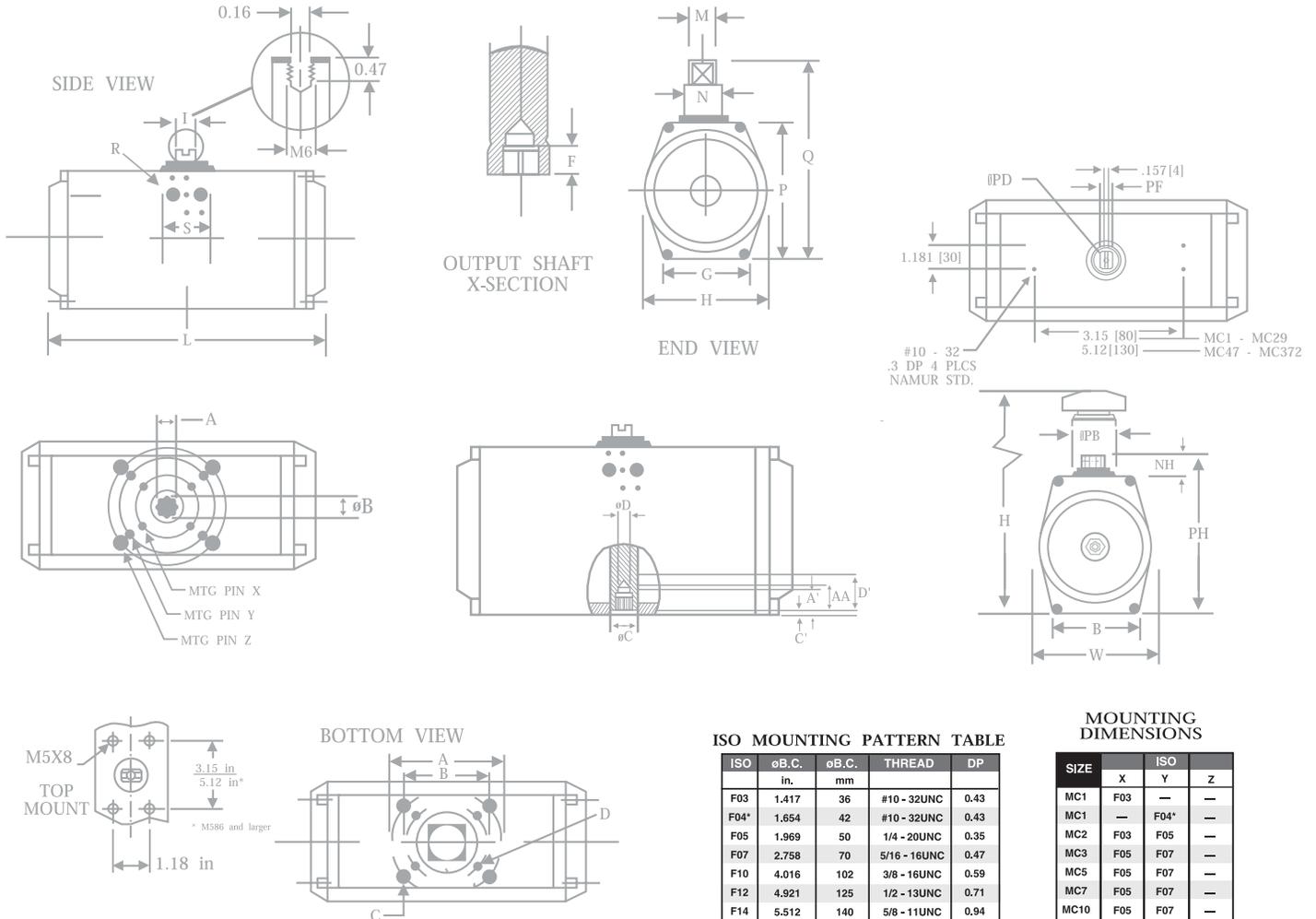
| MODEL | 90° | 120° | 180° | K6 |
|-------|--------|--------|--------|--------|
| MC1 | 12.8 | — | — | 6.7 |
| MC2 | 15.3 | 17.1 | 28.1 | 7.3 |
| MC3 | 22.0 | 24.4 | 41.5 | 9.2 |
| MC5 | 36.6 | 42.7 | 68.3 | 15.3 |
| MC7 | 52.5 | 61.0 | 99.5 | 22.0 |
| MC10 | 67.1 | 82.4 | 131.2 | 27.5 |
| MC14 | 112.9 | 137.3 | 189.2 | 41.5 |
| MC22 | 152.6 | 176.9 | 341.7 | 67.1 |
| MC29 | 218.5 | 241.0 | 415.0 | 86.7 |
| MC47 | 335.6 | — | — | 174.5 |
| MC58 | 416.2 | 476.0 | 790.2 | 174.5 |
| MC90 | 762.8 | — | — | 396.7 |
| MC121 | 872.6 | 1013.0 | 1293.7 | 360.0 |
| MC236 | 1586.6 | 1861.2 | 2471.5 | 701.8 |
| MC295 | 1922.2 | 2288.4 | — | 1037.4 |
| MC372 | 2955.0 | — | — | 1594.0 |

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MC Series

RACK & PINION PNEUMATIC ACTUATORS



MOUNTING DIMENSIONS

ISO MOUNTING PATTERN TABLE

| ISO | øB.C. in. | øB.C. mm | THREAD | DP |
|------|--------------|-------------|--------------|------|
| F03 | 1.417 | 36 | #10 - 32UNC | 0.43 |
| F04* | 1.654 | 42 | #10 - 32UNC | 0.43 |
| F05 | 1.969 | 50 | 1/4 - 20UNC | 0.35 |
| F07 | 2.758 | 70 | 5/16 - 16UNC | 0.47 |
| F10 | 4.016 | 102 | 3/8 - 16UNC | 0.59 |
| F12 | 4.921 | 125 | 1/2 - 13UNC | 0.71 |
| F14 | 5.512 | 140 | 5/8 - 11UNC | 0.94 |
| F16 | 6.496 | 165 | 3/4 - 10UNC | 1.18 |

' MC90 has 5/8" - 11UNC on F16
 ' MC372 also includes a 4.59 x 12.87 rectangular pattern
 * Alternate Bottom Plate (MC1 Only)

| SIZE | ISO | | |
|-------|-----|------|------|
| | X | Y | Z |
| MC1 | F03 | — | — |
| MC1 | — | F04* | — |
| MC2 | F05 | F05 | — |
| MC3 | F05 | F07 | — |
| MC5 | F05 | F07 | — |
| MC7 | F05 | F07 | — |
| MC10 | F05 | F07 | — |
| MC14 | F07 | F10 | — |
| MC22 | F07 | F10 | — |
| MC29 | F07 | F10 | F12 |
| MC47 | — | F10 | F12 |
| MC58 | — | F10 | F12 |
| MC90 | — | F12 | F16' |
| MC121 | — | — | F14 |
| MC236 | — | — | F16 |
| MC295 | — | — | F16 |
| MC372 | — | — | F16 |

| Model | A | FO | B | FO | C* | D* | E | F | G | H | I | L | L1* | M | N | P | Q | R | S |
|-------|------|-----|------|-----|-----------|-----------|-----------|------|------|-------|------|-------|-------|------|------|-------|-------|-----|------|
| MC1 | 1.65 | F04 | 1.42 | F03 | #10 - 32 | #10 - 32 | 9 or 11MM | 0.55 | 2.02 | 2.54 | 0.35 | 4.33 | — | 0.48 | — | 2.60 | 3.50 | 1/4 | .94 |
| MC2 | 1.97 | F05 | 1.42 | F03 | 1/4 - 20 | #10 - 32 | 14MM | 0.71 | 1.97 | 2.32 | 0.39 | 5.00 | 7.52 | 0.47 | 0.79 | 2.91 | 3.82 | 1/4 | .94 |
| MC3 | 2.76 | F07 | 1.97 | F05 | 5/16 - 18 | 1/4 - 20 | 14MM | 0.71 | 2.36 | 2.76 | 0.39 | 5.24 | 7.99 | 0.47 | 0.79 | 3.46 | 4.37 | 1/4 | .94 |
| MC5 | 2.76 | F07 | 1.97 | F05 | 5/16 - 18 | 1/4 - 20 | 17MM | 0.75 | 2.56 | 3.27 | 0.39 | 6.10 | 9.29 | 0.55 | 1.02 | 3.94 | 4.84 | 1/4 | .94 |
| MC7 | 2.76 | F07 | 1.97 | F05 | 5/16 - 18 | 1/4 - 20 | 17MM | 0.75 | 2.56 | 3.58 | 0.39 | 6.97 | 10.63 | 0.55 | 1.02 | 4.25 | 4.95 | 1/4 | .94 |
| MC10 | 2.76 | F07 | 1.97 | F05 | 5/16 - 18 | 1/4 - 20 | 17MM | 0.75 | 2.76 | 3.94 | 0.55 | 7.99 | 12.36 | 0.79 | 1.38 | 4.61 | 5.55 | 1/4 | .94 |
| MC14 | 4.02 | F10 | 2.76 | F07 | 3/8 - 16 | 5/16 - 18 | 22MM | 0.96 | 3.54 | 4.72 | 0.55 | 8.50 | 12.72 | 0.79 | 1.97 | 5.51 | 6.45 | 1/4 | .94 |
| MC22 | 4.02 | F10 | 2.76 | F07 | 3/8 - 16 | 5/16 - 18 | 22MM | 0.96 | 3.54 | 4.72 | 0.79 | 11.18 | 16.85 | 1.10 | 1.97 | 5.51 | 6.71 | 1/4 | .94 |
| MC29 | 4.02 | F10 | 2.76 | F07 | 3/8 - 16 | 5/16 - 18 | 22MM | 0.98 | 4.06 | 5.39 | 0.79 | 11.42 | 17.76 | 1.10 | 1.97 | 6.30 | 7.51 | 1/4 | .94 |
| MC47 | 4.92 | F12 | 4.02 | F10 | 1/2 - 13 | 3/8 - 16 | 27MM | 1.07 | 4.33 | 6.77 | 0.79 | 13.27 | — | 1.10 | 2.36 | 7.80 | 9.70 | 1/4 | .94 |
| MC58 | 4.92 | F12 | 4.02 | F10 | 1/2 - 13 | 3/8 - 16 | 27MM | 1.07 | 4.33 | 6.77 | 1.10 | 14.49 | 22.36 | 1.42 | 2.36 | 7.80 | 9.70 | 1/4 | .94 |
| MC90 | 6.50 | F16 | 4.92 | F12 | 3/4 - 10 | 1/2 - 13 | 36MM | 1.57 | 5.31 | 8.82 | 1.26 | 16.62 | — | 1.42 | 2.84 | 10.00 | 11.77 | 1/4 | .94 |
| MC121 | 5.51 | F14 | — | — | 5/8 - 11 | — | 36MM | 1.57 | 5.31 | 8.82 | 1.26 | 17.72 | 27.24 | 1.57 | 2.95 | 10.00 | 11.77 | 1/4 | .94 |
| MC236 | 6.50 | F16 | — | — | 3/4 - 10 | — | 46MM | 1.57 | 6.26 | 10.71 | 1.26 | 23.07 | 35.63 | 1.57 | 3.54 | 11.89 | 13.66 | 1/4 | .94 |
| MC295 | 6.50 | F16 | — | — | 3/4 - 10 | — | 46MM | 1.53 | 6.26 | 10.71 | 1.26 | 23.07 | — | 1.57 | 3.54 | 11.89 | 13.66 | 1/4 | .94 |
| MC372 | 6.50 | F16 | — | — | 3/4 - 10 | — | 46MM | 1.61 | 6.30 | 14.17 | 1.26 | 26.89 | — | 1.58 | 2.96 | 14.17 | 15.94 | 1/2 | 1.97 |

Top mounting dimensions for accessories to Namur standard. Bottom mounting is to DIN-ISO standards.
 Solenoid mounting to Namur specifications is available on all units and is standard on units 14 and higher.
 * U.N.C. bolt sizes.
 L1* - 180° end-to-end dimensions

DRIVE DIMENSIONS

| SIZE | ISO SQUARE 8 - POINT | | | | | | | |
|-------|----------------------|-------|------|-------|------|------|------|------|
| | A mm | A in. | A' | øB | øC | C' | øD | D' |
| MC1 | 9 | 0.354 | 0.55 | 0.673 | 0.85 | 0.09 | — | — |
| MC1 | 11 | 0.433 | 0.55 | 0.673 | 0.85 | 0.09 | — | — |
| MC2 | 14 | 0.551 | 0.61 | 0.713 | 0.92 | 0.08 | 0.60 | 0.71 |
| MC3 | 14 | 0.669 | 0.61 | 0.713 | 0.92 | 0.08 | 0.60 | 0.71 |
| MC5 | 17 | 0.669 | 0.63 | 0.874 | 1.13 | 0.08 | 0.73 | 0.81 |
| MC7 | 17 | 0.669 | 0.63 | 0.874 | 1.25 | 0.08 | 0.73 | 0.81 |
| MC10 | 17 | 0.669 | 0.63 | 0.874 | 1.45 | 0.08 | 0.73 | 1.14 |
| MC14 | 22 | 0.866 | 0.81 | 1.122 | 1.57 | 0.10 | 0.94 | 1.03 |
| MC22 | 22 | 0.866 | 0.81 | 1.122 | 2.07 | 0.10 | 0.94 | 1.26 |
| MC29 | 22 | 0.866 | 0.83 | 1.122 | 2.07 | 0.12 | 0.94 | 1.30 |
| MC47 | 27 | 1.063 | 0.83 | 1.437 | 2.59 | 0.12 | 1.15 | 1.69 |
| MC58 | 27 | 1.063 | 0.83 | 1.437 | 2.59 | 0.12 | 1.15 | 1.69 |
| MC90 | 30 | 1.417 | 1.26 | 1.909 | 3.10 | 0.16 | 1.56 | 2.17 |
| MC121 | 36 | 1.417 | 1.26 | 1.909 | 3.10 | 0.16 | 1.56 | 2.17 |
| MC236 | 46 | 1.811 | 1.26 | 2.441 | 4.12 | 0.16 | 2.00 | 2.13 |
| MC295 | 46 | 1.811 | 1.22 | 2.441 | 5.12 | 0.12 | 2.00 | 2.09 |
| MC372 | 48 | 1.811 | 1.26 | 2.441 | 5.12 | 0.12 | 2.00 | 2.13 |

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